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NEW OR INTERESTING FUNGI

DAVID ROSS SUMSTINE

(WITH PLATES 115-117, CONTAINING 16 FIGURES)

Hormisciopsis gen. nov.

Pulvinate, effused, gelatinous, collapsing when dry; mycelium well developed, filiform, branched; sporophore not differing from the mycelium, erect or suberect; spores in chains, bright-colored.

This genus differs from *Hormiscium* in its gelatinous character. In gross appearance it is not unlike some species of Tremellaceae, particularly species of *Exidia* or *Guepinia*. The manner of production of spores separates it entirely from this group.

Hormisciopsis gelatinosa sp. nov.

Pulvinate or effused, contorted, plicate, compact, appearing as though oozing out of the substratum, red to dark-red; mycelium filiform, branched; sporophores not differentiated from the mycelium; spores in chains, the chains branched, globose to ellipsoid, guttulate, somewhat granular, $5-6 \times 6-10 \mu$.

On decayed wood, Fern Hollow, Allegheny Co., Pennsylvania, August, 1907.

The type specimens are in the Carnegie Museum, Pittsburgh, Pa.

Arthrosporium album sp. nov.

Plants gregarious, mycelium scanty; stroma conic or cylindric, 0.5-1 mm. high, white, composed of a fascicle of parallel hyphae, the fertile hyphae becoming free along the stroma or spreading above and forming a small head; spores borne on sterigmata on the swollen ends of the fertile hyphae; spores hyaline, 3-septate, guttulate, cylindric-fusiform, $5-8 \times 25-30 \mu$.

On decayed log, Fern Hollow, Allegheny Co., Pennsylvania, 1912.

The genus *Arthrosporium* is used simply as a pigeonhole for this species. Its affinities are with several genera. It might be

placed with equal propriety in *Atractium* or *Harpographium*. *Atractium* differs from *Arthrosporium* in the shape of the spores; *Harpographium* differs in the colored hyphae and in the simple spores.

The type specimens are in the Carnegie Museum, Pittsburgh, Pa.

PHYLLOSTICTA ATRIPLICIS Desm.

From published descriptions, *Phyllosticta Atriplicis* Desm. and *Septoria Atriplicis* (West.) Fuckl. may be the same species. I have not seen the type specimens of either species and therefore cannot say definitely that such is the case, but specimens collected on leaves of *Atriplex hastata* L. during the summers of 1909, 1910, 1911, and 1912 may throw some light on the matter. The specimens were collected at different places in Wilkinsburg and always showed remarkable uniformity in growth and development.

The examination of fresh specimens showed pycnidia with long, guttulate, and apparently non-septate spores. The spores in old dry specimens appeared to be distinctly septate. This peculiar condition in spore character made the determination of the plants difficult. The long non-septate spores indicated the genus *Phoma* or *Macrophoma*; the older septate spores pointed to the genus *Septoria*.

It is probable that the septation in the older spores is due to the contraction of the protoplasmic mass in drying and therefore the septa are not true but only apparent.

Three species of *Phoma* are reported as growing on *Atriplex*: *Phoma longissima*, *Atriplicis*, *Westendorpii*. The spore measurements for these three species range from $4-10 \mu$ in length. The spores in my specimens are more than twice that length and, consequently, cannot be referred to any of these species.

Phyllosticta Atriplicis Desm. is described as having spores cylindric, ovate, straight or curved, 3-6-guttulate. The length of the spores is not given. *Septoria Atriplicis* (West.) Fuckl. has cylindric or subfusoid spores, $4.5-5 \times 25-35 \mu$, spuriously 1-2-3-septate. The spores in this latter species agree fairly well with the spores in my specimens. It may be possible, then, that these

two species are the same, the description of the one being drawn from fresh or young plants and the description of the other from old and dry plants.

If the arbitrary distinction between *Phyllosticta* and *Macrophoma*, the difference in the length of spores, is to be maintained, this plant should be referred to the genus *Macrophoma*.

The following is a description of my specimens:

The discolored spots are from 1-5 millimeters in diameter, white or brownish-white, irregularly scattered over the leaves. The pycnidia are subepidermal, globose-lenticular, generally epiphyllous but sometimes hypophyllous, brown to black, with distinct, circular ostiole. The spores are cylindric, straight or a little curved, obtuse at the ends, guttulate, apparently septate in old specimens, $4.5-5.5 \times 20-30 \mu$.

Streptothrix pereffusa sp. nov.

Effused, dense, confluent, olive-green to black; mycelium septate, colored, branching; sporophores erect, septate, diffusely branched, branches flexuous; spores borne at the ends and the sides of the branches, colored, ovoid to ellipsoid, $5-8 \mu$.

On bark, Bemus Point, N. Y., July, 1913.

This species is closely related to *S. atra* B. & C. It may be separated from the latter by the color, the smooth sporophores, and the dense growth.

The following species have been reported from America: *S. abietina* Pk., *S. glauca* E. & E., *S. cinerea* Morg., *S. fusca* Corda, *S. atra* B. & C.

It is unfortunate that the name *Streptothrix* is used for a genus in the Chlamydobacteriaceae. Cohn established this genus in 1854, but Corda had already used the name for a genus in the Dematiaceae in 1839.

Oidium album sp. nov.¹

Effused, forming a thin floccose layer over the substratum, white changing to dirty-white in drying; mycelium branched, septate; sporophores erect or suberect, simple or branched; spores concatenate, hyaline, ovoid to ellipsoid, $12-14 \times 16-22 \mu$.

On bark and *Coriolus abietinus*, Bemus Point, N. Y., July, 1913.

¹ See MYCOLOGIA 5: 47. 1913.

The type specimens are deposited in the Carnegie Museum, Pittsburgh, Pa.

Polyscytalum flavum sp. nov.²

Effused, floccose, white at first, then yellow to sulphur-yellow; mycelium scanty; sporophores scarcely differing from the mycelium; spores in chains, chains branched or simple, cylindric, truncate at the ends, $3 \times 16 \mu$.

On decayed wood, Bemus Point, N. Y., July, 1913.

This species resembles *Cylindrium flavo-virens* Bon., but the spores are larger and not curved.

The type specimens are in the Carnegie Museum, Pittsburgh, Pa.

Vaginata umbonata sp. nov.

Pileus thin, convex or expanded, 3.5–5 cm. broad, distinctly conically umbonate, covered with triangular scales arranged in somewhat concentric zones, tan-colored, scales darker, margin thin, smooth; gills 3–5 mm. broad, ventricose, sinuate, adnexed; stem 9–12 cm. long, solid, equal, concolorous, with long bulbous root; volva fimbriate, adhering closely to the stem; spores ovoid to ellipsoid, $5-7 \mu$ (*pl. II7. f. 1*).

Growing in sandy soil at Ohiopyle, Pennsylvania, August, 1908.

This species is closely related to *Amanitopsis adnata* (Smith) Sacc. in its adnate gills; to *Agaricus (Amanitopsis) urceolatus* Viv. in its umbonate pileus; and to *Amanitopsis volvata* (Peck) Sacc. in its floccose-scaly pileus. It is easily separated from these species by its conic umbo, concentrically arranged scales, and fimbriate volva.

The type specimens are in the Carnegie Museum, Pittsburgh, Pa.

Marasmius Morganianus sp. nov.

Pileus membranaceus, convex, sometimes nearly expanded, glabrous, slightly rugulose on the margin, reddish-brown or rufescent, center darker, 2–5 mm. broad; gills few, subdistant, broad, adnate, pallid at first, darker when old; stem 2–3 cm. long, slender, equal, rufescent at the base, pallid at the top, covered with a white pubescence; spores fusoid or ellipsoid, $3-6 \mu$.

On fallen leaves, Somerset, Pennsylvania, August, 1906.

² See *Mycologia* 5: 55. 1913.

In correspondence with Prof. A. P. Morgan in 1906 relative to some species of *Marasmius*, Mr. Morgan said concerning this plant, "I think it is something new, near *M. atro-rubens* Berk." The description was then written and submitted to Mr. Morgan for publication in the *Journal of Mycology*. For various reasons, it was not published at that time but the plant may be found by other collectors, and the description is therefore published.

The type specimens are in the Carnegie Museum, Pittsburgh, Pa.

PEABODY HIGH SCHOOL,
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EXPLANATION OF PLATE CXV

Figs. 1-3. *Hormisciopsis gelatinosa* Sumstine. Figs. 1-2 show mycelium, sporophores and spores highly magnified. Fig. 3 shows a group of plants nearly natural size.

Figs. 4-5. *Arthrosporium album* Sumstine. Fig. 4 shows stroma and spores highly magnified. Fig. 5, a group of plants nearly natural size.

Figs. 6-8. *Phyllosticta Atriplicis* Desm. Figs. 6 and 7 show leaves of *Atriplex hastata* with discolored spots containing pycnidia. Fig. 8 shows pycnidia and spores highly magnified.

EXPLANATION OF PLATE CXVI

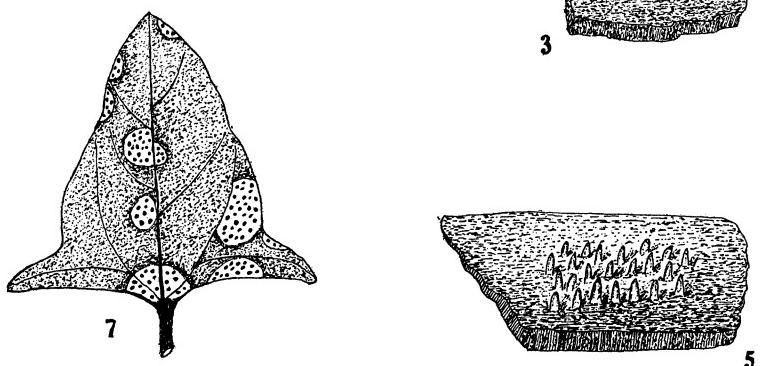
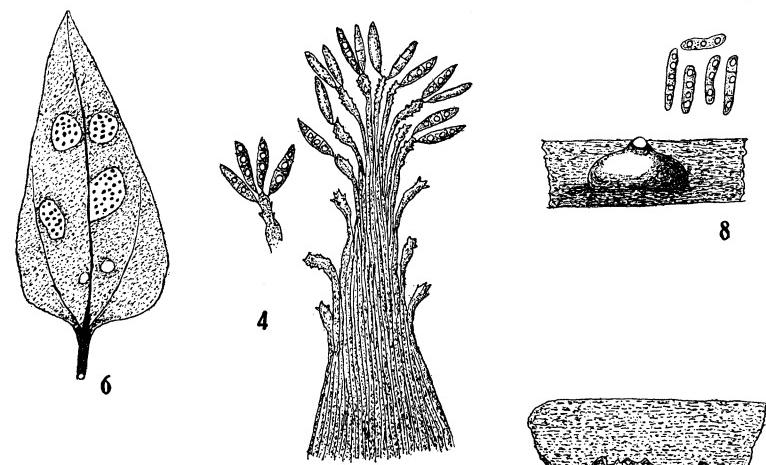
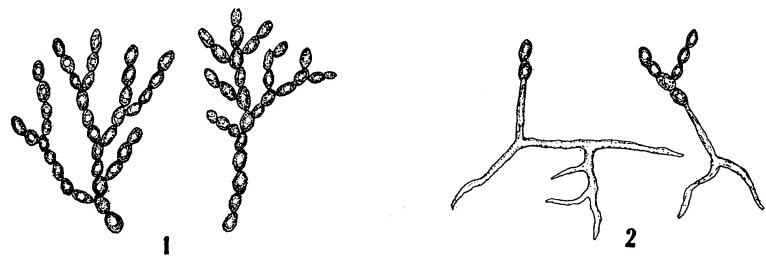
Fig. 1. *Oidium album* Sumstine; mycelium, sporophores and spores.

Fig. 2. *Polyscytalum flavum* Sumstine.

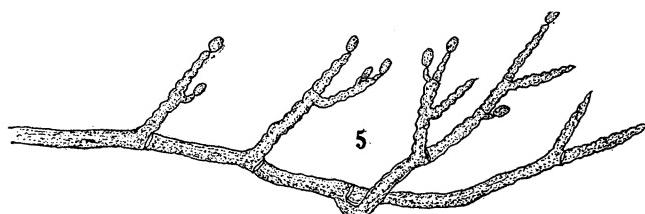
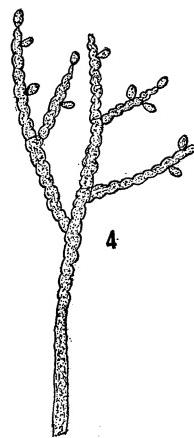
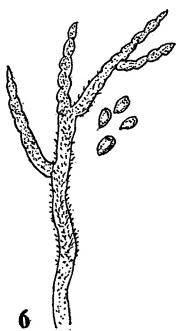
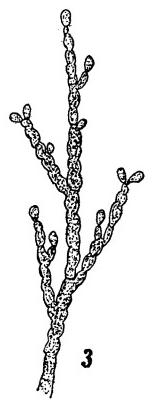
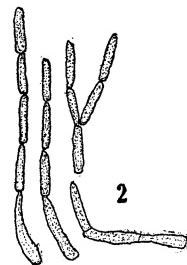
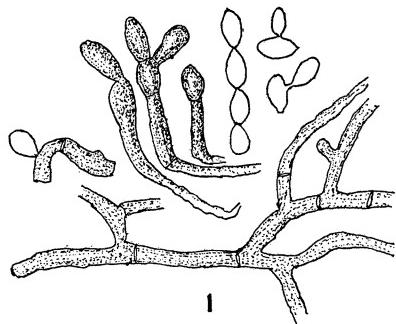
Figs. 3-5. *Streptothrix pereffusa* Sumstine; sporophores and spores.

Fig. 6. *Streptothrix atra* B. & C.

The figures were drawn with the aid of the camera lucida and are highly magnified.



HORMISCIOPSIS, ARTHROSPORIUM AND PHYLLOSTICTA



OIDIUM, POLYSCYTALUM AND STREPTOTHRIX

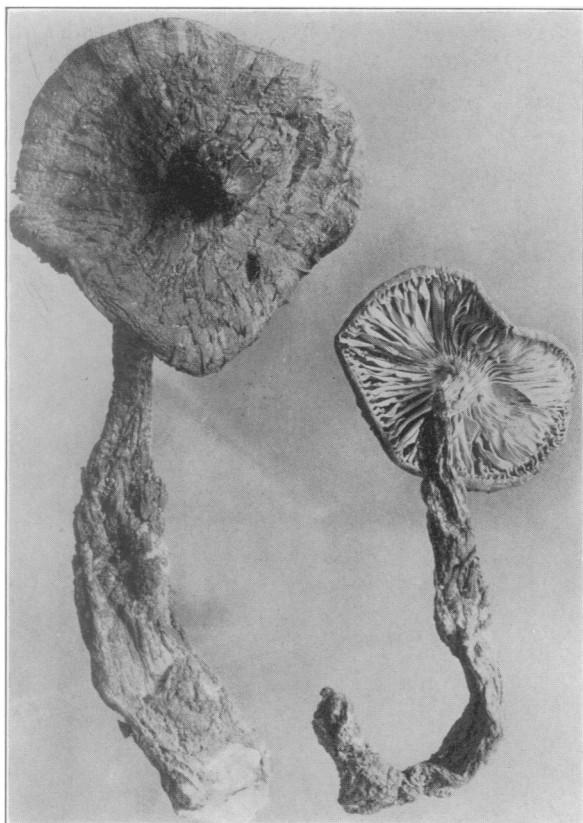


FIG. 1 (UPPER). *VAGINATA UMBONATA* SUMSTINE
FIG. 2 (LOWER). AERIAL GALL OF THE MESQUITE